COMPARATIVE IMMUNOLOGY, MICROBIOLOGY AND INFECTIOUS DISEASES

Editor-in-Chief
CHARLES PILET
Alfort, France

VOLUME 23, 2000
VOLUME CONTENTS AND AUTHOR INDEX

Pergamon

COMPARATIVE IMMUNOLOGY, MICROBIOLOGY AND INFECTIOUS DISEASES

The International Journal for Medical and Veterinary Researchers and Practitioners

Editor-in-Chief

PROFESSOR CHARLES PILET
Ecole Nationale Vétérinaire d'Alfort, 7 avenue du Général de Gaulle
94704 Maisons-Alfort Cedex, France

Regional Editors

PROFESSOR G. CASTRUCCI
Universita di Perugia
Istituto di Malattie Infettive
Facolta di Medicina Veterinaria
Via S. Costanzo 4,
06100 Perugia, Italy

DR B. I. OSBURN
Associate Dean-Research
School of Veterinary Medicine
University of California
Davis, CA 95616
U.S.A.

DR K. YAMANOUCHI
Nippon Institute for Biological Science
2221-1 Shin-machi, Ome
Tokyo 198
Japan

Editorial Advisory Board

DR A. BARTHA (Budapest, Hungary)
PROFESSOR J. BERNARD (Paris, France)
DR K. BETTLEHEIM (Melbourne, Australia)
PROFESSOR H. BLOBEL (Giessen, Germany)
PROFESSOR F. BURKI (Wien, Austria)
MR A. W. DUDLEY JR (Houston, TX, U.S.A.)
PROFESSOR P. GORET (St Mandé, France)
PROFESSOR J. GOUDSWAARD (Utrecht, The Netherlands)
DR R. B. GRIFFITHS (Rome, Italy)
DR I. IVANOV (Sofia, Bulgaria)
PROFESSOR D. W. JOHNSON (St Paul, MN, U.S.A.)
DR J. KRAL (Suchdol, Czech Republic)
PROFESSOR T. T. KRAMER (Ames, IA, U.S.A.)
DR B. LASALLE (College Park, MD, U.S.A.)
PROFESSOR B. B. MALLICK (Izatnagar, India)
DR N. P. MARKHAM (Wellington South, New Zealand)
DR Z. MATHYAS (Brno, Czech Republic)
PROFESSOR A. MAYR (München, Germany)
PROFESSOR H. MOLLARET (Allones, France)
DR J. M. PERSON (Maisons-Alfort, France)
PROFESSOR L. PESTI (Budapest, Hungary)
MR A. RITCHIE (Ames, IA, U.S.A.)
PROFESSOR J. H. STEELE (Houston, TX, U.S.A.)
PROFESSOR M. TRUSZCZYNSKI (Pulawy, Poland)
DR J. G. VAN BEKKUM (Lelystad, The Netherlands)
DR R. VITTOZ (Paris, France)
PROFESSOR J. T. WANG (Taiwan, Republic of China)

Author Service Department. For queries relating to the general submission of articles (including electronic text and artwork) and the status of accepted manuscripts, please contact the Author Service Department: E-mail: authors@elsevier.co.uk; Fax: +44 (0) 1865 843905; Tel: +44 (0) 1865 843900.

Advertising information. Advertising orders and enquiries can be sent to: **USA, Canada and South America**: Mr Tino de Carlo, The Advertising Department, Elsevier Science Inc., 655 Avenue of the Americas, New York, NY 10010-5107, USA; phone: (+1) (212) 633 3815; fax: (+1) (212) 633 3820; e-mail: t.decarlo@elsevier.com. **Japan**: The Advertising Department, Elsevier Science K.K., 9-15 Higashi-Azabu 1-chome, Minato-ku, Tokyo 106-0044, Japan; phone: (+81) (3) 5561 5033; fax: (+81) (3) 5561 5047. **Europe and ROW**: Rachel Leveson Gower, The Advertising Department, Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, UK; phone: (+44) (1865) 843565; fax: (+44) (1865) 843976; e-mail: r.leveson.gower@elsevier.co.uk

Publication information: Comparative Immunology, Microbiology and Infectious Diseases (ISSN 0147-9571). For 2000, volume 23 is scheduled for publication. Subscription prices are available upon request from the Publisher or from the Regional Sales Office nearest you or from this journal's website (http://www.elsevier.nl/locate/cimid). Further information is available on this journal and other Elsevier Science products through Elsevier's website: (http://www.elsevier.nl). Subscriptions are accepted on a prepaid basis only and are entered on a calendar year basis. Issues are sent by standard mail (surface within Europe, air delivery outside Europe). Priority rates are available upon request. Claims for missing issues should be made within six months of the date of dispatch.

Periodicals postage paid at Rahway, New Jersey. Comparative Immunology, Microbiology and Infectious Diseases (ISSN 0147-9571) is published 4 issues per year in January, April, July and October by Elsevier Science Ltd., The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, UK. The annual subscription in the USA is $605.00.
Comparative Immunology, Microbiology and Infectious Diseases is circulated by Mercury International Limited, 365 Blair Road, Avenel, NJ 07001, USA.
POSTMASTER: Please send address corrections to: Comparative Immunology, Microbiology and Infectious Diseases, c/o Customer Services, Elsevier Science Inc., 655 Avenue of the Americas, New York, NY 10010, USA.

© 2000 Elsevier Science Ltd. All rights reserved

CONTENTS

Number 1

K. A. BETTELHEIM, J. C. BENSINK and H. SIDJABAT TAMBUNAN — 1 Serotypes of verotoxin-producing (Shiga toxin-producing) *Escherichia coli* isolated from healthy sheep

W. AHNE and A. MAYR — 9 Reptilian paramyxoviruses induce cytokine production in human leukocytes

M. FERRARI, G. L. GUALANDI, A. CORRADI, C. MONACI, M. G. ROMANELLI, M. N. LOSIO, A. M. CANTONI and A. PRATELLI — 15 The response of pigs inoculated with a thymidine kinase-negative (TK^-) pseudorabies virus to challenge infection with virulent virus

A. ESTRADA, G. S. KATSELIS, B. LAARVELD and B. BARL — 27 Isolation and evaluation of immunological adjuvant activities of saponins from *Polygala senega* L.

K. KROVACEK, L. M. ERIKSSON, C. GONZÁLEZ-REY, J. ROSINSKY and I. CIZNAR — 45 Isolation, biochemical and serological characterisation of *Plesiomonas shigelloides* from freshwater in Northern Europe

S. DUMONTET, K. KROVACEK, S. B. SVENSON, V. PASQUALE, S. B. BALODA and G. FIGLIUOLO — 53 Prevalence and diversity of *Aeromonas* and *Vibrio* spp. in coastal waters of Southern Italy

Number 2

T. SOVERI, H. HENTTONEN, E. RUDBÄCK, R. SCHILDT, R. TANSKANEN, J. HUSU-KALLIO, V. HAUKISALMI, A. SUKURA and J. LAAKKONEN — 73 Disease patterns in field and bank vole populations during a cyclic decline in central Finland

J. MEGID and R. KANENO — 91 Natural killer activity in mice infected with rabies virus and submitted to *P. acnes* (*Propionibacterium acnes*) as immunomodulator

F. ABDUL-SALAM and M. H. MANSOUR — 99 Identification and localization of a schistosome-associated fucosyllactose determinant expressed by *Fasciola hepatica*

B. I. WATSON and B. HAMMERBERG 113 Identification of a collectin-like protein in pig serum that binds a component in perienteric fluid from *Ascaris suum*

Short communications

S. C. ARYA 125 Human contact with cattle, dogs and monkeys and genetic diversity of measles viruses

N. GIADINIS, G. KOPTOPOULOS, N. ROUBIES, V. SIARKOU and A. PAPASTERIADES 129 Selenium and vitamin E effect on antibody production of sheep vaccinated against enzootic abortion (*Chlamydia psittaci*)

Number 3

M. P. POLAK and J. F. ZMUDZINSKI 141 Experimental inoculation of calves with laboratory strains of bovine viral diarrhea virus

R. P. FEOLA and C. J. CZUPRYNSKI 153 Binding of bovine growth hormone to *Mycobacterium avium ss paratuberculosis*

G. CASTRUCCI, B. I. OSBURN, F. FRIGERI, M. FERRARI, D. SALVATORI, M. LO DICO and F. BARRECA 163 The use of immunomodulators in the control of infectious bovine rhinotracheitis

A. GARCÍA, J. A. RUIZ-SANTA-QUITERIA, J. A. ORDEN, D. CID, R. SANZ, M. GÓMEZ-BAUTISTA and R. DE LA FUENTE 175 Rotavirus and concurrent infections with other enteropathogens in neonatal diarrheic dairy calves in Spain

FERNANDA BERNARDI and FUMIO H. ITO 185 Maternal antibody passively transferred interferes with rabies vaccination in hamsters

BRACHA YAKOBSON, J. BRENNER, HANNA UNGAR-WARON and Z. TRAININ 197 Cellular immune response cytokine expression during the initial stage of bovine leukemia virus (BLV) infection determines the disease progression to persistent lymphocytosis

A. PANSHIN, E. SHIHMANTER, Y. WEISMAN, C. ÖRVELL, A. KYDYRMANOV, N. ASANOV, K. DAULBAEVA, M. SAYATOV and M. LIPKIND 209 Antigenic characterization of the nucleocapsid protein of Newcastle disease virus by means of a new panel of monoclonal antibodies

Number 4

M. Y. Kosoy, E. K. Saito, D. Green, E. L. Marston, D. C. Jones and J. E. Childs — 221 Experimental evidence of host specificity of *Bartonella* infection in rodents

S. D. Rodríguez, M. A. García Ortiz, G. Hernández Salgado, N. A. Santos Cerda, R. Aboytes Torres and G. J. Cantó Alarcón — 239 *Anaplasma marginale* inactivated vaccine: dose titration against a homologous challenge

Y. M. Abouzeed, H. Hariharan, C. Poppe and F. S. B. Kibenge — 253 Characterization of *Salmonella* isolates from beef cattle, broiler chickens and human sources on Prince Edward Island

Jacek Osek, Peter Gallien and Dieter Protz — 267 Characterization of shiga toxin-producing *Escherichia coli* strains isolated from calves in Poland

Note

Bernard Mudenda Hang'ombe, Emiko Isogai, Josphat Lungu, Charles Mubita, Andrew Nambota, Rikio Kirisawa, Koichi Kimura and Hiroshi Isogai — 277 Detection and characterization of *Clostridium* species in soil of Zambia

I PatentsAlert